



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 7
901 NORTH 5TH STREET
KANSAS CITY, KANSAS 66101

OCT 23 2010

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Brian Mills
DICO
P.O. Box 1616
Des Moines, Iowa 50306

Re: Response to EME's July 15, 2010 Correspondence
Performance Evaluation Report No. 23
Groundwater Extraction and Treatment System
Des Moines TCE Site, Des Moines, Iowa

Dear Mr. Mills:

This letter responds to the subject letter prepared by Environmental Management and Engineering, Inc (EME) regarding the Operable Unit 1 (OU 1) extraction and treatment system at the site. EPA does not agree with the conclusion stated in Performance Evaluation Report No. 23 (PER 23) that "the natural hydraulics of the Raccoon River can adequately protect the groundwater quality of the west bank even with the DICO system turned off." EME has not provided any groundwater modeling, pump test data or other technical information to support this conclusion.

Before the hydraulic containment system was installed, contaminants from DICO's property migrated into the Des Moines Water Works Gallery System. Even though the North Gallery is no longer in operation, as indicated by the potentiometric maps in PER 23, when the South Gallery is in operation, drawdown in the vicinity of the North Gallery is still evident.

Also, as shown in PERs from 2005 to 2008, contaminants associated with the DICO property have been found in monitoring wells on the west side of the Raccoon River, indicating that operation of the South Gallery can induce migration of contaminants from the DICO property on the east side of the Raccoon River to the west side of the river. Historical water level data clearly indicate that the DICO extraction system exerts an influence in wells on the west side of the river.

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Thus, DICO's own monitoring demonstrates that the Raccoon River is not a hydraulic barrier to contaminant migration and that continued operation of the extraction system is necessary to prevent the plume from migrating underneath the Raccoon River or to other areas.¹

EPA has repeatedly indicated its willingness to consider modifying the existing remedy or evaluating an alternative remedy. EPA has suggested on several occasions that DICO conduct optimization studies of the current hydraulic containment system to obtain the information necessary to support such a change. To date, DICO has not responded directly to any of EPA's suggestions for optimization or modification, except to suggest shutting down the system. If DICO wants to modify or replace the existing pump and treat system, this is what it needs to do:

- (1) Submit a work plan for EPA review and approval for an investigation to define the capture zones of the existing extraction wells and to delineate the Trichloroethylene (TCE) source areas.
- (2) Upon completion of this investigation, submit to EPA for review and approval a report summarizing the findings and conclusions of the investigation.
- (3) Based on the results of this investigation and other available information, including the historical groundwater data, submit to EPA for review and approval a report evaluating possible modifications to the existing remedial action. This evaluation should include an analysis of the remedy selection criteria set forth in the NCP. The influent concentrations of TCE and Dichloroethylene (DCE) into the air stripper have been relatively constant in recent years, indicating that these contaminants remain in the source areas, e.g., as Dense Non-Aqueous Phase Liquid (DNAPL). Options to treat or remove residual DNAPL contamination should be evaluated since they may be more effective than traditional pump and treat remedies in meeting groundwater restoration goals.

EPA will evaluate the information in the investigation report and alternatives analysis and decide whether it believes a change in the remedy is appropriate. Depending upon the significance of the anticipated change, EPA may need to amend the existing OU 1 Record of Decision (ROD). The ROD amendment process includes public involvement where EPA would propose a revised remedy and give the public the opportunity to comment on it. There are other procedural options for less significant changes in the remedy, such as an explanation of significant differences (ESD), which also involves notice to the public, or a memo to the file for relatively minor changes. Any option involving shutting down the pump and treat system, not

¹ EPA is concerned that EME apparently only has access to data from the past four or five years. Most, if not all, of the historical information, including the original groundwater modeling reports, were prepared by DICO's consultants. If DICO no longer has this information, please let me know and we can discuss the most appropriate way to make these reports available. EPA's making this information available does not in any way excuse DICO from its obligation to maintain records pursuant to paragraph 62 of the 1986 Unilateral Administrative Order, Docket No. 86-F0011 for Operable Unit 1

just altering the number of extraction wells, would probably entail a ROD amendment. Until we go through one of these processes to change the remedy, the pump and treat system must remain in operation.

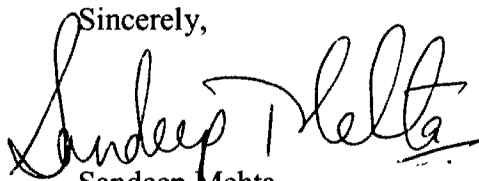
In conclusion, EPA emphasizes the following points:

1. EPA remains willing to consider alternative remedies for the contaminated groundwater based on sound scientific study and in keeping with the process outlined in the National Contingency Plan to modify the existing remedy.
2. Until such time as the current remedy is modified and the 1986 UAO is amended or replaced with a new order addressing the revised remedy, the groundwater extraction and treatment system must continue to operate.

DICO should make sure that EME has all the available groundwater monitoring data and modeling results developed pursuant to the 1986 UAO to consider in making recommendations about modifying the hydraulic containment system. If DICO does not have this information, please contact me to obtain the information.

If you have any questions about the above information, please contact me at (913) 551-7454.

Sincerely,

A handwritten signature in black ink, appearing to read "Sandeep Mehta". The signature is fluid and cursive, with the first name "Sandeep" and last name "Mehta" clearly distinguishable.

Sandeep Mehta
Remedial Project Manager
Iowa/Nebraska Remedial Branch
Superfund Division

cc: Bob Drustrup, IDNR
Gazi George
Quentin McDonald, EME
Mike McCurnin, DMWW
Gary Benjamin, DMWW

bcc: Dan Shiel, ORC
Hattie Thomas, OPA